The First Meeting of the
Solid Waste Site Suitability Rule Revision Stakeholders Group
July 14, 2005
1:00 – 4:00 PM
Bennett Springs Conference Room
Elm Street Conference Center
1738 East Elm Street, Jefferson City, Missouri

Meeting Summary

Welcome and Introduction

Mimi Garstang gave the welcome and acknowledged Representatives Belinda Harris, Bob May, Wayne Henke and Charlie Schlottach. She thanked everyone for attending and expressed that the main goal of the meeting was to look at the siting criteria for landfills in Missouri. There's been some concern that the existing rules are vague. They don't provide enough certainty about what's an acceptable site geologically or hydrologically for siting a landfill. She commented on the various perspectives that the diversity of the group should bring to this issue. She also noted that the group should discuss the kind of risks there might be in siting a landfill. Mimi encouraged the group to ask questions and stated that the department will take the input from this group and revise the existing rule on landfill siting in the state of Missouri. She introduced Alice Geller and Bill Duley as the discussion leaders. She also acknowledged participation by Trent Summers, the department's new legislative liaison.

After having everyone introduce themselves, Alice gave the following ground rules: Respect for each other/time, honesty and openness. She informed the group that the meeting is being recorded and facilitated.

Alice explained the difference between a law (aka statute) and a rule. The legislature designates the authority to the department to write rules to implement the law/statute. Laws and statutes are drafted by legislators and signed by the governor. The department drafts rules to implement the laws, with input from stakeholders. Once rules are filed they are codified in the Code of State Regulations. Amendments to current rules are what we are focusing on in this workgroup.

Background

Jim Hull gave some background information on how landfills were permitted in the past, versus today. He talked about where we came from and where we are now.
In the 80s and early 90s, when the Solid Waste Management Program received a landfill application, often that was the first time the state became aware of a proposed site. The design for the facility and the hydrogeologic investigation would come at the same time, all in one application. The law required a public hearing be held on the application.

In the early '90s the Solid Waste Management Program (SWMP) and DGLS (now GSRAD), met with EPA Region 7 to discuss streamlining the solid waste permitting process. As a

result, it was determined that the process needed to be broken into smaller parts. This process was finalized in an EPA report in 1992.

In 1993, SWMP built on EPA's report to further streamline the permitting process. SWMP's report recommended changing the process to make it better and to facilitate decisions made at an earlier stage instead of one final decision affecting the whole process. Those recommendations and reports led to the passage of SB60-112 in 1995, which set forth the multi-step permitting process. By splitting the process into stages the applicant or their consultant avoided spending a lot of time or money investigating a site that may not be suitable.

Still, there was a need for increased public involvement in the process. SWMP, with assistance by stakeholders, began an effort to establish a multi-step public involvement process. The passage of HB603, 722, and 783 in 1999 finalized the effort. The process now includes several opportunities for public input.

The SWMP also put together a booklet titled "Suggestions for Improving Public Participation and Community Involvement Activities". It outlines the whole process as it is now with a timeline associated with it.

Why are we here today?
The rule, as it is currently written, implements the work and approval processes that are contained in 10 CSR 80-2.015 (pg. 7 of tab 4) along with an appendix. The regulation talks about how the process works, what kind of information has to be submitted and the time frames for approving or disapproving a site. What the department has been hearing is that the rule doesn't say a lot about how we are going to make that decision. It doesn't state the criteria for what is a suitable or unsuitable site. We shouldn't change the rule to do away with the whole process. We need to focus more on the level of detail on how GSRAD makes their determinations. That's the focus of this discussion and what a potential rule change should contain.

The group discussed the need to define the term "geologically and hydrologically suitable", so that an applicant for a landfill knows what they are up against. Another discussion ensued regarding the view of the public. It was stated that the standards should be clear. If the standards are vague, they aren't going to lead the public to trust the decision of the department. The standards need to be set with certainty so the public can see that these particular standards are followed.

Geological Overview:
Bill Duley discussed waste disposal sites in different areas of the state. The glacial drift in northern Missouri generally displays low permeability and has low permeable bedrock beneath it. There are natural barriers to water and gas movement. Groundwater monitoring can be difficult because glacial material yields so little water that it's hard to tell which way the groundwater's flowing.

The southern part of the state has a lot of karst features. Problems in karst include losing streams; high permeability; sinkholes; etc. all of which create a challenge for siting a landfill.

Bill continued with the problem encountered with putting disposal sites in the floodplains or alluvium. Alluvium is permeable and groundwater flow is predictable in alluvial settings but it is called a flood plain for a reason. Alluvium floods unless protected from flood waters. He showed an example of a model to determine how fast a contaminant moves in alluvium.

Issues to Consider

Bill listed the following as possible issues to consider in determining site suitability:

The role of natural barriers
The definition of "unstable area" the phrase hasn't been well-defined
Monitorability of groundwater
Siting in floodplains
Different types of waste-(i.e. municipal solid waste-utility/demolition etc.)
Gas migration
Buffer zones
Engineering controls
Inward gradient facilities
Different site suitability criteria for horizontal and vertical expansions

Peter Price supplemented Bill's presentation with GIS maps with layers that showed the geologic features of the state, locations of public and private water wells, rivers and streams, etc.

How Other States Approach the Siting Issue

Steve Sturgess gave a brief overview of how other states have approached the issue of siting landfills. GSRAD staff gathered information from 18 states that have siting rules for proposed solid waste landfills. These states were Oklahoma, Kansas, Nebraska, Iowa, Illinois, Kentucky, Tennessee, Arkansas, Minnesota, Michigan, Wisconsin, Indiana, Ohio, Wyoming, Colorado, California, Oregon, and Georgia.

He indicated that some states have location restrictions related to groundwater and potential groundwater impact. For instance, some states will not allow a landfill to be sited over a high-yield aquifer; over a sole-source aquifer; within a specified distance of the seasonal high water table; where there will be a detrimental effect on water quality; or where pumping controls groundwater levels. Oklahoma, Kansas, Nebraska, Wisconsin, Missouri, Arkansas, Michigan, and Georgia do not have explicit location restrictions in place relating to groundwater.

Some states have location restrictions related to land use and/or zoning restrictions. Some states do not allow landfills within sand and gravel pits; within limestone or sandstone quarries; where gas migration is significant; within abandoned quarries directly connected to water resources; or where specific setback restrictions apply (not including runway restrictions.)

All 18 states have location restrictions regarding natural hazards. Much of this is derived from federal statutes or regulations which state that a landfill cannot be located within the 100-year flood plain; within areas of subsurface mining; in seismic impact zones; near holocene faults; in unstable areas; or in karst terrain.

Mr. Sturgess then explained that regardless of these restrictions, many states will allow for landfills to be sited in an otherwise unacceptable location if a "demonstration" can be made that the landfill will not create a problem. For instance, Iowa, Illinois, Wisconsin and Ohio will allow a landfill to be sited in an area of potential groundwater risk as long as the applicant can adequately demonstrate that there will be no significant impact on groundwater. Other states will allow similar demonstrations to be made in regard to land use/zoning restrictions and natural hazards.

There was much discussion as to risk of failure of engineered structures. The opinions went from "an engineer can design around any obstacle if enough money is available" to "no risk of groundwater contamination is acceptable."

Suggestions were made to 1) couch the regulations as a rate of permeability that is acceptable; 2) use a point system; 3) use different criteria for different types of landfills (e.g. demolition waste landfills vs. utility waste (fly ash) landfills vs. Municipal Solid Waste (MSW) landfills.

Next Steps

DNR staff will discuss the input from this meeting and plan a strategy for the best way to develop the rule. The options will be discussed at the next meeting.

The following people attended the meeting:

Alice Geller, MDNR
Rep. Belinda Harris, State Representative, 110th District
Beth Marsala, MDNR-SWMP
Bill Duley, MDNR-GSRAD
Bill Upmon, Waste Management
Bob Berri, Berri Exploration Services
Rep. Bob May, State Representative, 149th District
Bruce Morrison, Great Rivers Environmental Law
Bud Hayes, Kaysinger Basin Planning Commission
Carla Kline, Ozark chapter-Sierra Club
Rep. Charlie Schlottach, State Representative, 111th District
Dave Coonrod, Greene County Commission
Deborah Aubuchon, Concerned citizen
Erick Roberts, City of Springfield
Jeffrey Binder, Aquaterra Environmental Solutions, Inc.
Jerry Brown, Jefferson County Code Enforcement
Jim Bell, MDNR-SWMP
Jim Hull, MDNR-SWMP
Joe Gilman, MDNR-GSRAD
John Bognar, Leggette, Brashears & Graham, Inc.
Karl Finke, Schreiber, Yonley, & Associates
Leslie Holloway, Missouri Farm Bureau
Mark Haddock, Golder Associates, inc.
Mark Russell, Missouri Solid Waste Association of North America
Mimi Garstang, MDNR-GSRAD
Paul Hilpman, Academia-Independent Consultant
Rachel Griffin, MDNR-SWMP
Robert Rohlfs, AIPG-MO
Shelley A. Woods, Missouri AGO
Sherry Zoll, Show-Me
Steve Jeffery, Thompson Coburn
Steve Rudloff, MO Limestone Producers
Steve Sturgess, MDNR-GSRAD
Tim Roehl, South Central SWMD-Region P
Tom Aley, Ozark Underground Laboratory, Inc.
Tom Gredell, Gredell Engineering Resources, Inc. ACECMO
Tom Wagner, St. Charles County
Trent Summers, MDNR
Rep. Wayne Henke, State Representative, 11th District